ZooKeys 205: 33–44 (2012)
doi: 10.3897/zookeys.205.3148
www.zookeys.org

RESEARCH ARTICLE

A peer-reviewed open-access journal
ZooKeys
Launched to accelerate biodiversity research

Three new species of *Lathrobium* Gravenhorst (Coleoptera, Staphylinidae, Paederinae) from Sichuan, Southwest China

Zhong Peng[1,†], Li-Zhen Li[1,‡], Mei-Jun Zhao[1,§]

1 *Department of Biology, College of Life and Environmental Sciences, Shanghai Normal University, Shanghai, 200234, P. R. China*

† *urn:lsid:zoobank.org:author:6CDD4A22-46AC-4DAF-8409-6D1922AE5D81*
‡ *urn:lsid:zoobank.org:author:BBACC7AE-9B70-4536-ABBE-54183D2ABD45*
§ *urn:lsid:zoobank.org:author:FBE4FA1F-5BCF-405E-98C1-4F86894643EA*

Corresponding author: *Mei-Jun Zhao* (mjzhao@shnu.edu.cn)

Academic editor: *Volker Assing* | Received 30 March 2012 | Accepted 25 June 2012 | Published 4 July 2012

urn:lsid:zoobank.org:pub:EE75F7B0-B3D1-45AD-888E-10F0D43EB684

Citation: Peng Z, Li LZ, Zhao MJ (2012) Three new species of *Lathrobium* Gravenhorst (Coleoptera, Staphylinidae, Paederinae) from Sichuan, Southwest China. ZooKeys 205: 33–44. doi: 10.3897/zookeys.205.3148

Abstract

Three new species of the genus *Lathrobium* Gravenhorst, 1802 from Sichuan Province, Southwest China are described and illustrated: *L. acutissimum* **sp. n.**, *L. hailuogouense* **sp. n.** and *L. labahense* **sp. n.** A checklist of Chinese *Lathrobium* is provided.

Keywords

Coleoptera, Staphylinidae, taxonomy, *Lathrobium*, new species, key to species, checklist, Sichuan, China

Introduction

Up to today, 57 species of the genus *Lathrobium* Gravenhorst, 1802 have been reported from China. The records of four species are doubtful and the presence of the remaining 53 species has been confirmed in the past (Assing 2009, 2010a, b; Chen et al. 2005a, b; Hua 2002; Li 1992; Li and Chen 1990, 1993; Peng and Zhao 2012a, b;

Copyright *Zhong Peng et al.* This is an open access article distributed under the terms of the Creative Commons Attribution License 3.0 (CC-BY), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Ryvkin 2011; Schülke 2002; Smetana 2004; Watanabe 1997, 1998, 1999a, b, 2005, 2011; Watanabe and Xiao 1994, 1996, 1997, 2000).

Only one species, *Lathrobium watanabei* Schülke, 2002, had been known from the vast Sichuan Province, China. In the neighbouring provinces, seventeen species have been recorded from Yunnan Province (Bernhauer, 1938; Hua, 2002; Watanabe & Xiao, 1994, 1996, 1997, 2000), one from Guizhou Province (Chen et al. 2005a) and two from Shaanxi Province (Chen et al. 2005b).

In 2006, Hu and Tang made a collecting trip to the Hailuogou and the Labahe natural reserves and collected a number of *Lathrobium* specimens. Among them, three new species are recognized and reported herein and a checklist of Chinese *Lathrobium* is provided.

Material and methods

All specimens were collected from the leaf litter of in broad-leaved forests by sifting. The following abbreviations are used in the text, with all measurements in millimeters:

body length (BL): length of body from the labral anterior margin to the anal apex;
forebody length (FL): length of the clypeal anterior margin to the elytral apex;
head length (HL): length of head from the clypeal anterior margin to the posterior margin of the head;
head width (HW): maximum width of head;
pronotum length (PL): length of pronotum along midline;
pronotum width (PW): maximum width of pronotum;
elytra length (EL): length of elytra from the apex of the scutellum to the elytral posterior margin.

The type material is deposited in the Insect Collection of Shanghai Normal University, Shanghai, China. (SNUC).

Descriptions

***Lathrobium* (*Lathrobium*) *acutissimum* Peng, Li & Zhao, sp. n.**
urn:lsid:zoobank.org:act:F4955AB5-B251-496B-9802-D3D26E6D39AE
http://species-id.net/wiki/Lathrobium_acutissimum
Figs 1A, 2

Type locality. Labahe Natural Reserve, Sichuan Province, Southwest China

Type material (5 ♂♂, 4 ♀♀)**.** Holotype: ♂, labeled '**CHINA:** Sichuan Prov. / Tianquan County / Labahe N. R. / 30°09'N, 102°26'E / 30.vii.2006, alt. 2,000 m /

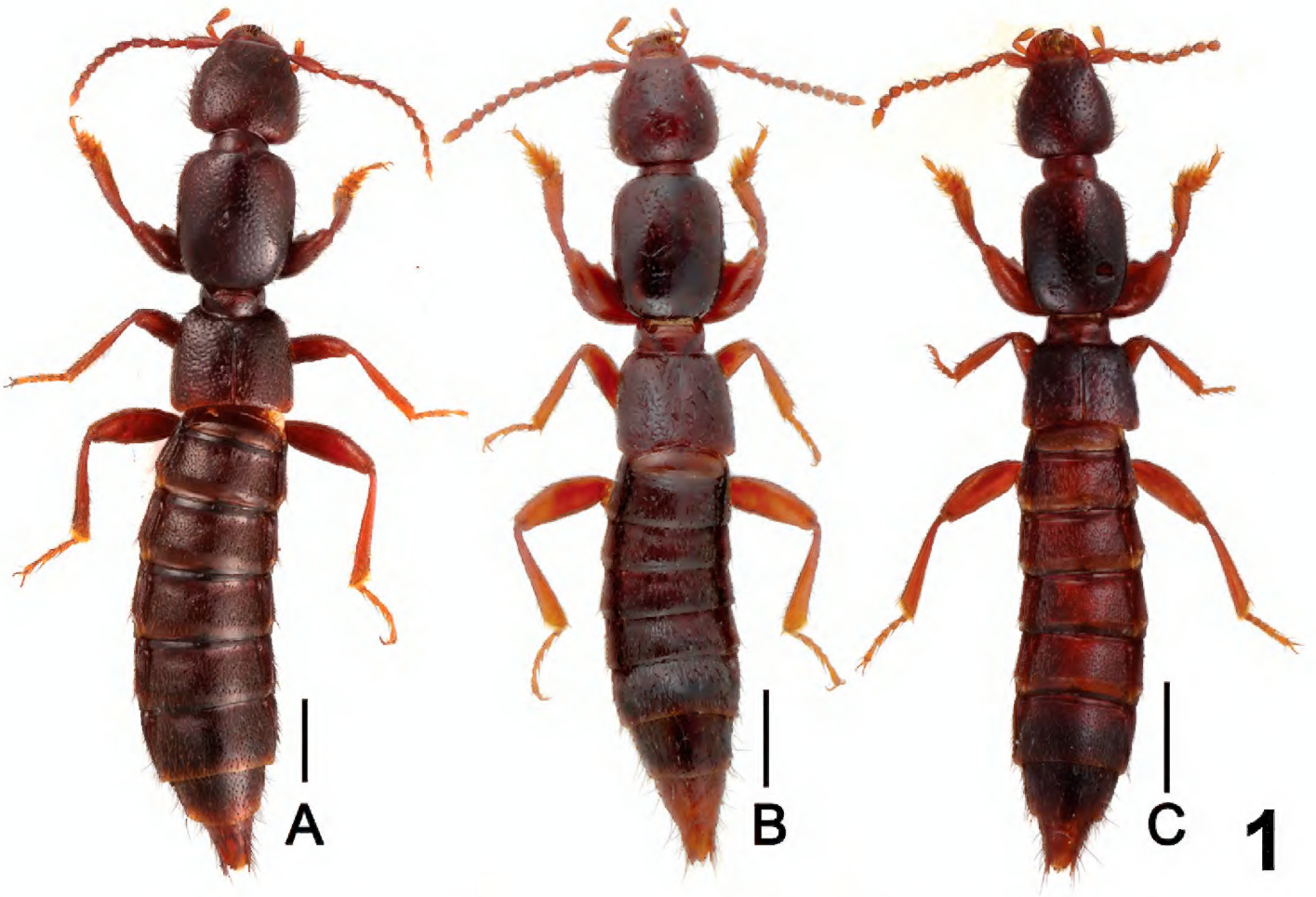

Figure 1. Male habitus of *Lathrobium* spp., **A** *L. acutissimum* **B** *L. hailuogouense* **C** *L. labahense.* Scales: 1.0 mm.

Hu & Tang leg.'. Paratypes: 4 ♂♂, 2 ♀♀, same label data as holotype; 2 ♀♀, same label data, except '29.v.2006'.

Description. Measurements and ratios: BL 8.12–10.00, FL 3.78–4.11, HL 1.18–1.26, HW 1.26–1.31, PL 1.52–1.63, PW 1.30–1.41, EL 0.98–1.05, HL/HW 0.93–0.96, HW/PW 0.94–0.97, HL/PL 0.76–0.79, PL/PW 1.16–1.17, EL/PL 0.64–0.67.

Habitus as in Fig. 1A. Body brown with paler apex, legs brown to light brown, antennae brown to reddish brown.

Head subquadrate (HL/HW 0.93–0.96); punctation coarse and dense; interstices with shallow and netlike microsculpture; eyes small, approximately 1/5–1/4 of length of postocular region in dorsal view.

Pronotum nearly parallel-sided; punctation sparser than that of head; impunctate midline narrow; interstices shining without microsculpture.

Elytra with punctation denser than that of pronotum and well defined; hind wings reduced.

Abdomen with dense punctation; interstices with very shallow, transversely striate microsculpture.

Male. Sternite VII (Fig. 2A) with short, darkish setae in U-shaped posterio-median impression; sternite VIII (Fig. 2B) with triangular, symmetrical emargination and short, darkish setae in shallow impression; sternite IX (Fig. 2C) long and nearly symmetrical; aedeagus (Fig. 2D, 2E) with very slender, ventral process.

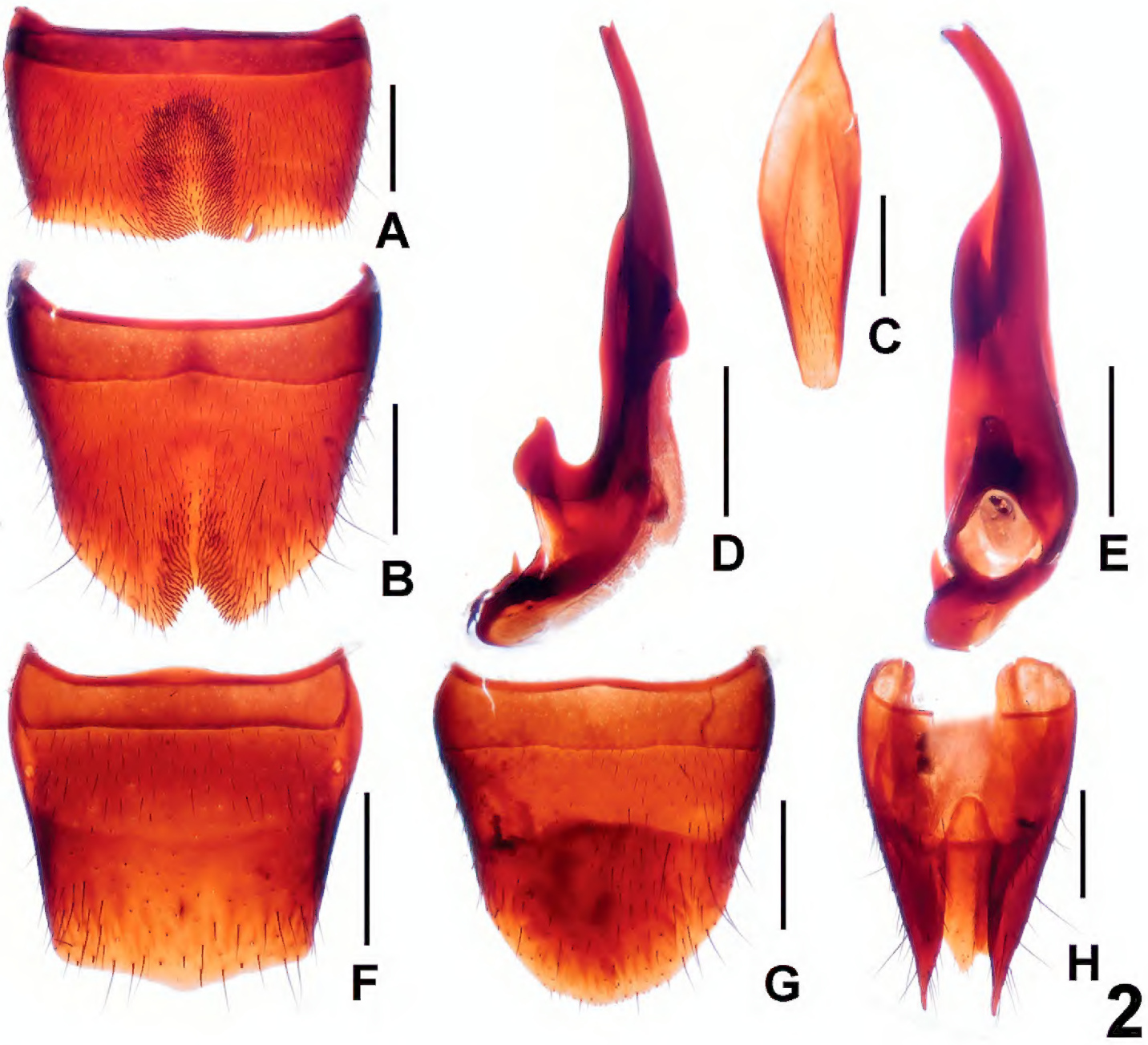

Figure 2. *Lathrobium acutissimum*. **A** male sternite VII **B** male sternite VIII **C** male sternite IX **D** aedeagus in lateral view **E** aedeagus in ventral view **F** female tergite VIII **G** female sternite VIII **H** female tergites IX–X. Scales: 0.5 mm.

Female. Posterior margin of tergite VIII (Fig. 2F) somewhat convex; sternite VIII (Fig. 2G) slightly longer than that of male, posterior margin broadly convex; tergite X (Fig. 2H) not acute basally and not reaching anterior margin of tergite IX (Fig. 2H).

Distribution. Southwest China: Sichuan.

Etymology. The specific epithet (Latin, adjective: sharp) alludes to the apical margin of the male sternite IX.

Remarks. It resembles *Lathrobium lijiangense* Watanabe & Xiao, 1997 from Yunnan in having a similar shape of the male sternite VII. The new species can be readily distinguished from these species by the male sternite VIII with a triangular emargination at the apical margin and by the aedeagus with a much longer ventral process. In *L. lijiangense*, the male sternite VIII has a semi-elliptical emargination at the apical margin and the ventral process of the aedeagus is short.

***Lathrobium* (*Lathrobium*) *hailuogouense* Peng, Li & Zhao, sp. n.**
urn:lsid:zoobank.org:act:9D0986A3-9EFF-43D6-9414-3CD35F1F17FC
http://species-id.net/wiki/Lathrobium_hailuogouense
Figs 1B, 3

Type locality. Hailuogou, Sichuan Province, Southwest China

Type material (10 ♂♂, 13 ♀♀)**.** Holotype: ♂, labeled '**CHINA:** Sichuan Prov. / Luding County / Hailuogou / 29°41'N, 102°06'E / 23.vii.2006, alt. 2,200–2,300 m / Hu & Tang leg.'. Paratypes: 4 ♂♂, 4 ♀♀, same label data as holotype; 3 ♂♂, 4 ♀♀, same data, except '29°41'N, 102°07'E / 24.vii.2006, alt. 2,800–3,000 m'; 2 ♂♂, 4 ♀♀, same data, except '27.vii.2006'; 1 ♀, same data, except '28.vii.2006'.

Description. Measurements and ratios: BL 7.23–8.34, FL 3.34–3.72,HL 1.04–1.11, HW 1.05–1.15, PL 1.39–1.48, PW 1.07–1.20, EL 0.93–1.02, HL/HW 0.94–0.99, HW/PW 0.96–0.99, HL/PL 0.75–0.79, PL/PW 1.23–1.30, EL/PL 0.67–0.69.

Habitus as in Fig. 1B. General appearance similar to *L. acutissimum*, except for somewhat smaller body size and sparser punctation on head and pronotum.

Male. Posterior margin of sternite VII (Fig. 3A) weakly concave; sternite VIII (Fig. 3B) with symmetrical, subtriangular emargination and darkish setae in large, shallow impression; sternite IX (Fig. 3C) asymmetrical; aedeagus (Fig. 3D, 3E) with slender, ventral process and short, dorsal sclerites.

Female. Posterior margin of tergite VIII (Fig. 3F) nearly truncate; sternite VIII (Fig. 3G) much longer than that of male, posterior margin strongly convex; tergite X (Fig. 3H) slender and not reaching anterior margin of tergite IX (Fig. 3H).

Distribution. Southwest China: Sichuan.

Etymology. The specific epithet of this new species is derived from the type locality "Hailuogou".

Remarks. The new species resembles *Lathrobium zhangi* Watanabe & Xiao, 1997 from Yunnan in having the posterior margin of the male sternite VII weakly concave and a similar shape of the male sternite VIII. The new species can be readily distinguished from these species by the broad ventral process of the aedeagus in lateral view. In *L. zhangi*, the ventral process of the aedeagus is much narrower in lateral view.

***Lathrobium* (*Lathrobium*) *labahense* Peng, Li & Zhao, sp. n.**
urn:lsid:zoobank.org:act:06462E31-EB5D-4F33-849E-E224427D4CC6
http://species-id.net/wiki/Lathrobium_labahense
Figs 1C, 4

Type locality. Labahe Natural Reserve, Sichuan Province, Southwest China

Type material (1 ♂, 1 ♀)**.** Holotype: ♂, labeled '**CHINA:** Sichuan Prov. / Tianquan County / Labahe N. R. / 30°09'N, 102°28'E / 31.vii.2006, alt. 2,400–2,600 m / Hu & Tang leg.'. Paratypes: 1♀, same label data as holotype.

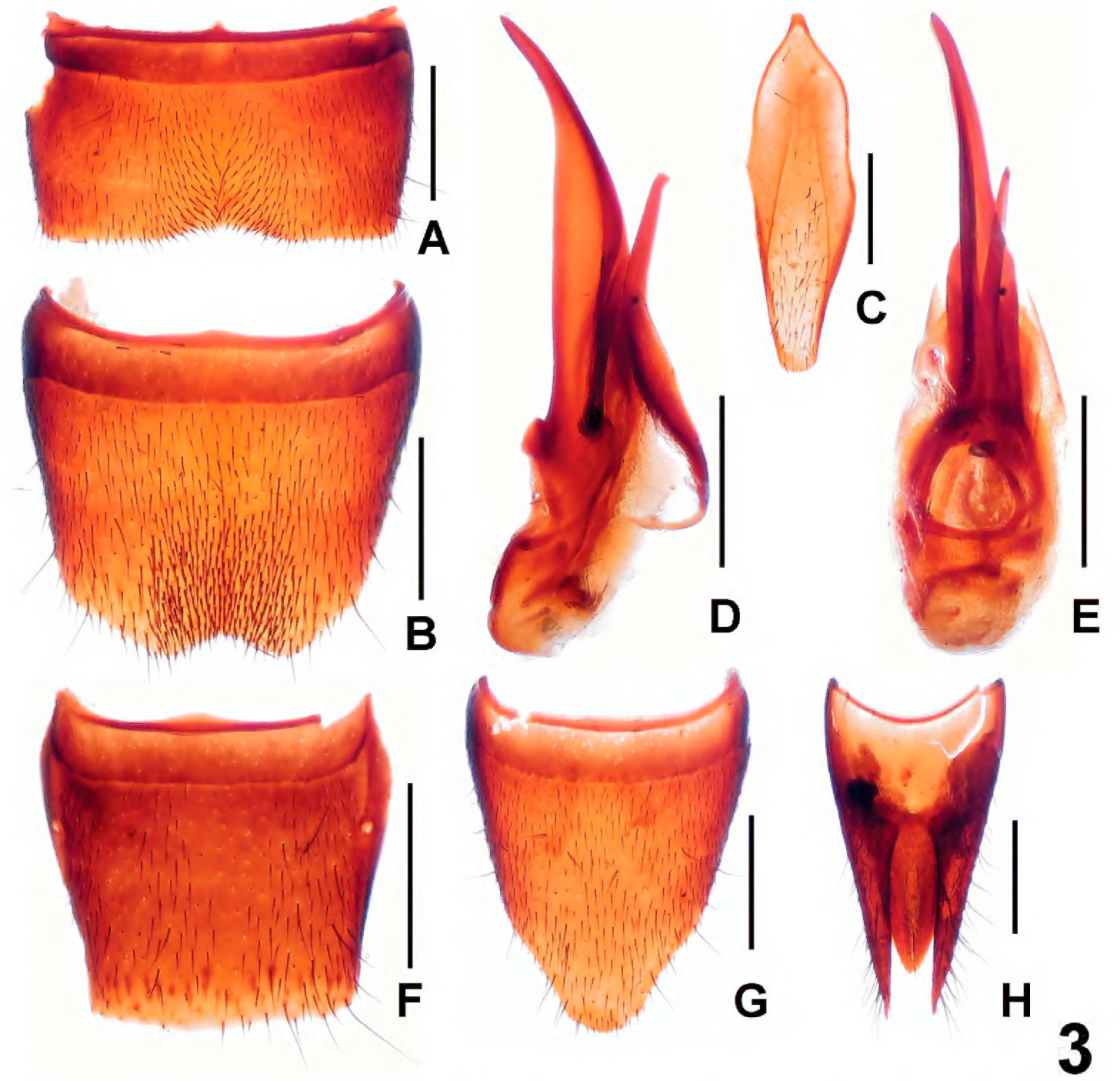

Figure 3. *Lathrobium hailuogouense*. **A** male sternite VII **B** male sternite VIII **C** male sternite IX **D** aedeagus in lateral view **E** aedeagus in ventral view **F** female tergite VIII **G** female sternite VIII **H** female tergites IX–X. Scales: 0.5 mm.

Description. Measurements and ratios: BL 7.02–7.54, FL 2.95–3.06, HL 0.85–0.94, HW 0.88–0.92, PL 1.22–1.25, PW 0.91–0.93, EL 0.78–0.81, HL/HW 0.97–1.02, HW/PW 0.97–0.99, HL/PL 0.70–0.75, PL/PW 1.34, EL/PL 0.64–0.65.

Habitus as in Fig. 1C. Generally similar to *L. acutissimum* except for lighter coloration of legs, smaller body size, and somewhat sparser punctation on head and pronotum.

Male. Posterior margin of sternite VII (Fig. 4A) concave and with short, darkish setae; sternite VIII (Fig. 4B) with semicircular, symmetrical emargination and dense, long setae in shallow impression; sternite IX (Fig. 4C) nearly symmetrical; aedeagus (Fig. 4D, 4E) with long, ventral process and thin, dorsal sclerite.

Female. Posterior margin of tergite VIII (Fig. 4F) weakly convex; sternite VIII (Fig. 4G) much longer than that of male, posterior margin strongly convex; tergite IX (Fig. 4H) not separated from tergite X (Fig. 4H).

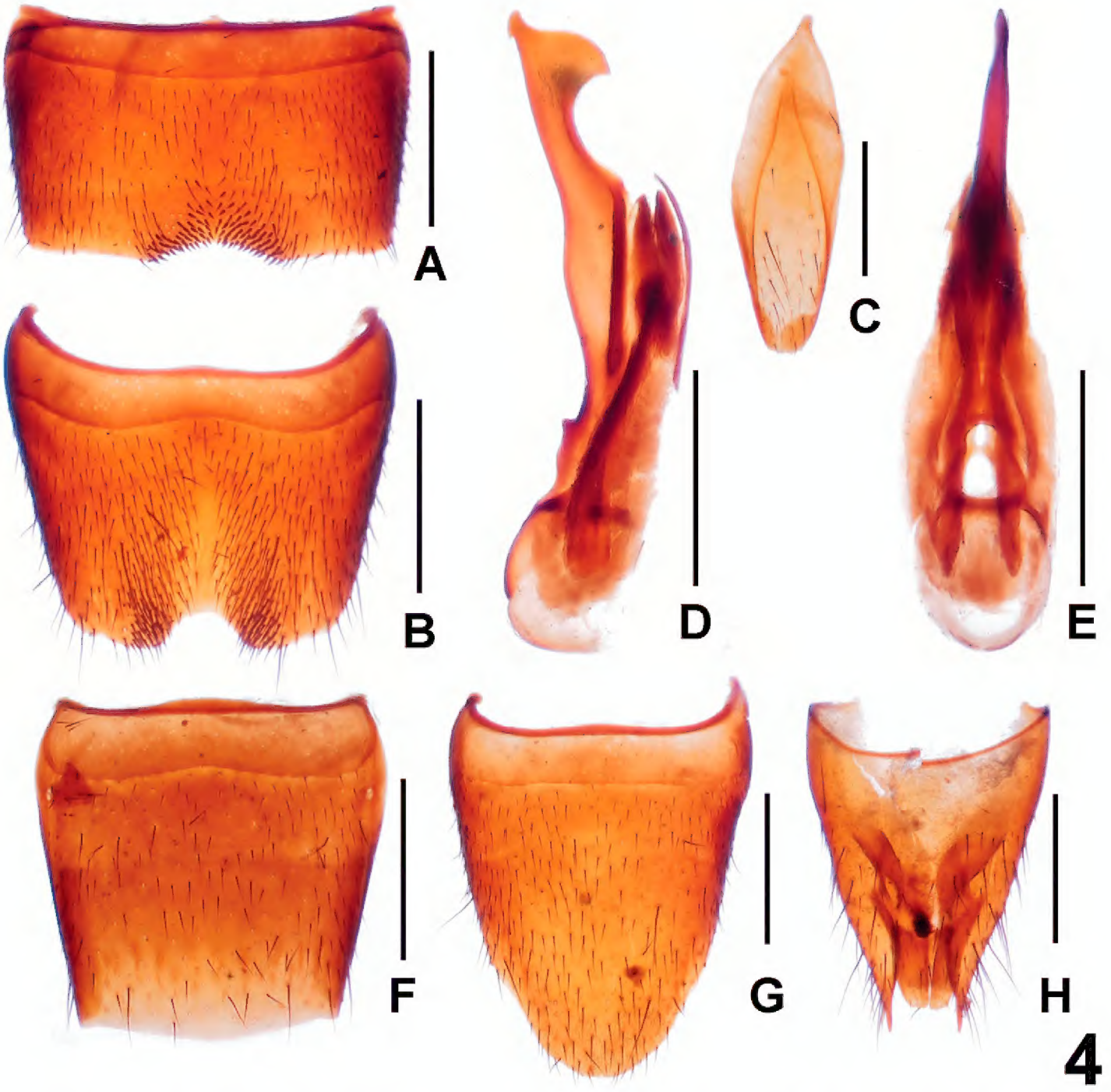

Figure 4. *Lathrobium labahense*. **A** male sternite VII **B** male sternite VIII **C** male sternite IX **D** aedeagus in lateral view **E** aedeagus in ventral view **F** female tergite VIII **G** female sternite VIII **H** female tergites IX–X. Scales: 0.5 mm.

Distribution. Southwest China: Sichuan.

Etymology. The specific epithet of this new species is derived from the type locality "Labahe".

Remarks. *Lathrobium labahense* resembles *L. watanabei* Schülke, 2002 in having a similar shape of the male sternite VIII, but can be readily separated by the aedeagus with a much longer ventral process.

A checklist of Chinese *Lathrobium*

The checklist is presented in Table 1. The species are arranged alphabetically, and all of them belong to the nominate subgenus. For synonymies see Smetana (2004).

Lathrobium nomurai Nakane, 1955 was listed for the China in Smetana (2004). However, this species is apterous and was originally described from Tsuruoka-Do Cave, Kyushu, Japan. Since it is most unlikely that it could be also found in China, we exclude *L. nomurai* from the list.

The literature references are abbreviated as follows:

A09	Assing (2009)
A10a	Assing (2010a)
A10b	Assing (2010b)
Aip	Assing (in press)
B38	Bernhauer (1938)
C05a	Chen et al. (2005a)
C05b	Chen et al. (2005b)
HE03	Herman (2003)
HU02	Hua (2002)
K46	Kolenati (1846)
L92	Li (1992)
LC90	Li and Chen (1990)
LC93	Li and Chen (1993)
P12a	Peng et al. (2012a)
P12b	Peng et al. (2012b)
Ppp	Peng et al. (present paper)
R11	Ryvkin (2011)
S62	Scheerpeltz (1962)
SCH02	Schülke (2002)
SCR59	Scriba (1859)
SH74	Sharp (1874)
SH89	Sharp (1889)
SM04	Smetana (2004)
W97	Watanabe (1997)
W98	Watanabe (1998)
W99a	Watanabe (1999a)
W99b	Watanabe (1999b)
W05	Watanabe (2005)
W11	Watanabe (2011)
WL92	Watanabe and Luo (1992)
WX94	Watanabe and Xiao (1994)
WX96	Watanabe and Xiao (1996)
WX97	Watanabe and Xiao (1997)
WX00	Watanabe and Xiao (2000)

Table 1. Checklist of Chinese *Lathrobium*. Footnotes: 1: doubtful record (likely misidentification); 2: communicated by Assing (personal communication).

Species	Distribution in China	References
acutissimum sp. n.	Sichuan: Jiajin Shan	Ppp
ailaoshanense Watanabe & Xiao, 1997	Yunnan: Ailao Shan	SM04, WX97
alesi Assing, 2010	Taiwan: Hsuehshan	A10b
alishanum Assing, 2010	Taiwan: Alishan	A10b
anmaicum Assing, 2010	Taiwan: Anmashan	A10b
aokii Watanabe & Xiao, 2000	Yunnan: Diancang Shan	SM04, WX00
baihualingense Watanabe & Xiao, 2000	Yunnan: Gaoligong Shan	SM04, WX00
baizuorum Watanabe & Xiao, 2000	Yunnan: Diancang Shan	SM04, WX00
cooteri Watanabe, 1999	Zhejiang: Linglong Shan	SM04, W99b
cylindricum Bernhauer, 1938	Jiangsu: Chinkiang	HU02, B38, SM04
dabeiense Watanabe & Xiao, 1997	Yunnan: Gaoligong Shan	SM04, WX97
daliense Watanabe & Xiao, 1994	Yunnan: Diancang Shan	SM04, WX94
dignum Sharp, 1874	Hubei, Jiangsu[2], Liaoning	HU02, L92, LC93, R11, SH74, SM04
extraculum Assing, 2010	Taiwan: Peitawushan	A10b
follitum Assing, 2010	Taiwan: Peitawushan	A10b
fulvipenne Gravenhorst, 1806	Heilongjiang	SM04
guizhouensis Chen, Li & Zhao, 2005	Guizhou: Fanjing Shan	C05a
hailuogouense sp. n.	Sichuan: Gongga Shan	Ppp
heteromorphum Chen, Li & Zhao, 2005	Shaanxi: Taibai Shan	C05b
houhuanicum Assing, 2010	Taiwan: Houhuanshan	A10b
hunanense Watanabe, 2011	Hunan: Zhangjiacao	W11
imadatei Watanabe, 1992	Zhejiang: Wuyanling	SM04, W92
involutum Assing, 2010	Taiwan: Hseuhshan	A10b
ishiianum Watanabe & Xiao, 2000	Yunnan: Gaoligong Shan	SM04, WX00
itohi Watanabe & Xiao, 2000	Yunnan: Gaoligong Shan	SM04, WX00
jingyuetanicum Li & Chen, 1990	Jilin: Jingyuetan	L92, LC90, LC93
jiulongshanense Peng & Li, 2012	Zhejiang: Jiulongshan	P12b
jizushanense Watanabe & Xiao, 1997	Yunnan: Jizu Shan	SM04, WX97
kishimotoi Watanabe, 2011	Hunan: Zhangjiacao	W11
kobense Sharp, 1874[1]	Jilin?, Hubei?	HU02, LC93, SM04
labahense sp. n.	Sichuan: Labahe	Ppp
lijiangense Watanabe & Xiao, 1997	Yunnan: Yulongxue Shan	SM04, WX97
lingae Peng, Li & Zhao, 2012	Zhejiang: Longwangshan	P12a
lineatocolle Scriba, 1859[1]	Jilin?	A09, A10a, K46, LC93, SCR59, SM04
lobrathiforme Assing, in press	Yunnan: Gaoligong Shan	Aip
lobrathioides Assing, in press	Sichuan: Jinfo Shan	Aip
longwangshanense Peng, Li & Zhao, 2012	Zhejiang: Longwangshan	P12a
miaoershanum Watanabe, 2011	Guangxi: Maoershan	W11
monilicorne Sharp, 1889[1]	Jilin?	L92, LC93, SH89, SM04
naxii Watanabe & Xiao, 1996	Yunnan: Yulongxue Shan	SM04, WX96

Species	Distribution in China	References
nenkaoicum Assing, 2010	Taiwan: Nenkaoshan	A10b
pollens Sharp, 1889[1]	Jilin?	L92, LC93, SM04
rougemonti Watanabe, 1999	Zhejiang: West Tianmu Shan	SM04, W99
semistriatum Scheerpeltz, 1962	Shandong: Taishan	HU02, S62, SM04
shaanxiensis Chen, Li & Zhao, 2005	Shaanxi: Taibai Shan	C05b
shaolaiense Watanabe, 1998	Taiwan: Ta-hsüeh Shan	SM04, W98
sheni Peng & Li, 2012	Zhejiang: Jiulongshan	P12b
shuheii Watanabe & Xiao, 2000	Yunnan: Gaoligong Shan	SM04, WX00
sinense Herman, 2003	Jiangsu: Chinkiang, Yunnan?	B38, HE03, HU02, SM04,
tamurai Watanabe, 1992	Zhejiang: Wuyanling	SM04, W92
tarokoense Assing, 2010	Taiwan: Taroko N. R.	A10b
tianmushanense Watanabe, 1999	Zhejiang: West Tianmu Shan	SM04, W99
tsuifengense Watanabe, 2005	Taiwan: Tsuifeng	W05
uncum Peng, Li & Zhao, 2012	Zhejiang: Longwangshan	P12a
utriculatum Assing, 2010	Taiwan: Peinantashan	A10b
watanabei Schülke, 2002	Sichuan: Daxue Shan	SCH02
xiei Watanabe & Xiao, 2000	Yunnan: Gaoligong Shan	SM04, WX00
yasutoshii Watanabe, 2005	Taiwan: Lishan	W05
yinae Watanabe & Xiao, 1997	Yunnan: Yulongxue Shan	SM04, WX97
yunnanum Watanabe & Xiao, 1994	Yunnan: Laohu Shan	SM04, WX94
zhangi Watanabe & Xiao, 1997	Yunnan: Jizu Shan	SM04, WX97
zhaotiexiongi Peng, Li & Zhao, 2012	Zhejiang: Jiulongshan, Majian	P12b

Acknowledgements

All the collectors mentioned in the text are acknowledged for their field work. Volker Assing and two anonymous reviewers are thanked for comments on a previous version of the manuscript. The study is supported by the National Natural Science Foundation of China (No. 31101659) and Shanghai Normal University (No. SK201234).

References

Assing V (2009) New species and additional records of *Lathrobium* and *Tetartopeus* from the Palaearctic region (Coleoptera: Staphylinidae: Paederinae). Linzer biologische Beiträge 41 (2): 1269–1283.

Assing V (2010a) On *Lathrobium castaneipenne* Kolenati (Coleoptera: Staphylinidae: Paederinae). Linzer biologische Beiträge 42 (2): 1073–1076.

Assing V (2010b) On the Lathrobiina of Taiwan. Beiträge zur Entomologie, Berlin, 60 (2): 301–361.

Assing V (in press) A revision of East Palaearctic *Lobrathium* (Coleoptera: Staphylinidae: Paederinae). Bonn Zoological Bulletin.

Bernhauer M (1938) Zur Staphylinidenfauna von China and Japan. Entomologisches Nachrichtenblatt (Troppau) 12: 17–39.

Chen J, Li LZ, Zhao MJ (2005a) A new species of the genus *Lathrobium* (Coleoptera, Staphylinidae) from Guizhou Province, Southwest China. Acta Zootaxonomica Sinica 30: 598–600.

Chen J, Li LZ, Zhao MJ (2005b) Two new species of the genus *Lathrobium* (Coleoptera Staphylinidae) from Qinling Mountains, Northwest China. In: Ren GD, Zhang RZ, Shi FM (Eds) Classification and Diversity of Insects in China. China Agricultural Science and Technology Press, Beijing, 102–105.

Gravenhorst JLC (1802) Coleoptera Microptera Brunsvicensia nec non exoticorum quotquot exstant in collectionibus entomologorum Brunsvicensium in genera familias et species distribuit. Brunsuigae, Carolus Richard, 206 pp.

Herman LH (2003) Nomenclatural changes in the Paederinae (Coleoptera: Staphylinidae). American Museum Novitates 3416: 1–28. doi: 10.1206/0003-0082(2003)416<0001:NCITPC>2.0.CO;2

Hua LZ (2002) Family Staphylinidae Latreille, 1802. In: Hua LZ (Eds) List of Chinese Insects: Vol. 2. Zhongshan University Press, Guangzhou, 49–64.

Kolenati FAR (1846) Meletemata entomologica. Fascicule III. Brachelytra Caucasi cum distributione geographica adnexis pselaphinis, scydmaenis, notoxidibus et xylophagis. Typis Imperialis Academiae Scientiarum, Petropoli, 44pp.

Li JK (1992) The Coleoptera fauna of Northeast China. Jilin Education Publishing House, Jinlin, 205 pp. [in Chinese, English title]

Li JK, Chen P (1990) The geographical distribution of soil beetles in Jilin Province. Journal of Northeast Normal University 1: 59–74. [in Chinese]

Li JK, Chen P (1993) Studies on fauna and ecogeography of soil animal. Northeast Normal University Press, Changchun, 265 pp. [in Chinese, English title]

Nakane T (1955) New or little-known Coleoptera from Japan and its adjacent Regions, XII. Scientific Reports of the Saikyo University, Natural Science and Living Science (A) 2: 24–42.

Peng Z, Li LZ, Zhao MJ (2012a) Taxonomic study on *Lathrobium* Gravenhorst (Coleoptera, Staphylinidae, Paederinae) from Longwangshan Mountain, East China. ZooKeys 165: 21–32. doi: 10.3897/zookeys.165.2384

Peng Z, Li LZ, Zhao MJ (2012b) Three new species of the genus *Lathrobium* Gravenhorst (Coleoptera, Staphylinidae, Paederinae) from the Jiulongshan Natural Reserve, East China. ZooKeys 184: 57–66. doi: 10.3897/zookeys.184.2634

Ryvkin AB (2011) On new and poorly known *Lathrobium* (s.str.) species from Siberia and the Russian Far East (Insecta: Coleoptera: Staphylinidae: Paederinae). Baltic Journal of Coleopterology 11 (2): 135–170

Scheerpeltz O (1962) Staphyliniden aus dem Deutschen Entomologischen Institut seinerzeit von Bernhauer als neu erkannt, abernicht mehr beschreiben. I. Teil: Arten aus der palaarktischen Faunenregion (Coleoptera: Staphylinidae). Beiträge zur Entomologie 12: 565–606.

Schülke M (2002) A new microphthalmous *Lathrobium* (Coleoptera, Staphylinidae, Paederinae) from Sichuan. Special Bulletin of the Japanese Society of Coleopterology 5: 251–254.

Scriba W (1859) Einige neue deutsche Staphylinen. Entomologische Zeitung (Stettin) 20: 413–417.

Sharp DS (1874) The Staphylinidae of Japan. The Transactions of the Entomological Society of London 1874: 1–103.

Sharp DS (1889) The Staphylinidae of Japan. The Annals and Magazine of Natural History (6) 3: 249–267. doi: 10.1080/00222938909460323

Smetana A (2004) Subfamily Staphylininae Latreille, 1802: In: Löbl I, Smetana A (Eds) Catalogue of Palaearctic Coleoptera, Volume 2. Apollo Books, Stenstrup, 593–598.

Watanabe Y (1997) New species of apterous *Lathrobium* (Coleoptera, Staphylinidae) from Yunnan Province, Southwest China. Elytra 25 (2): 493–580.

Watanabe Y (1998) Two new apterous *Lathrobium* (Coleoptera, Staphylinidae) from the Tahsüeh Shan Mountains in Taiwan. Elytra 26 (2): 303–311.

Watanabe Y (1999a) Two new subterranean staphylinids (Coleoptera) from East China. Elytra 27 (1): 249–257.

Watanabe Y (1999b) Two new species of the group of *Lathrobium pollens / brachypterum* (Coleoptera, Staphylinidae) from Zhejiang Province, East China. Elytra 27 (2): 573–580.

Watanabe Y (2005) Two new apterous *Lathrobium* (Coleoptera, Staphylinidae) from Taiwan. Japanese Journal of Systematic Entomology 11 (2): 203–208.

Watanabe Y (2011) Three New Species of Brachypterous *Lathrobium* (Coleoptera, Staphylinidae) from Central China. Elytra, New Series, 1 (2): 177–186.

Watanabe Y, Luo ZY (1992) New species of genus *Lathrobium* (Coleoptera, Staphylinidae) from the Wu-yan-ling Natural Protective Area in Zhejiang. Elytra 20 (1): 47–56.

Watanabe Y, Xiao NN (1994) New apterous *Lathrobium* (Coleoptera, Staphylinidae) from the Diancang Shan Mountain in Yunnan Province, Southwest China. Elytra 22 (2): 255–259.

Watanabe Y, Xiao NN (1996) A new species of the group of *Lathrobium pollens* group (Coleoptera, Staphylinidae) from Mt. Yulongxue Shan in Yunnan Province, Southwest China. Elytra 24 (1): 61–66.

Watanabe Y, Xiao NN (1997) New species of apterous *Lathrobium* (Coleoptera, Staphylinidae) from Yunnan Province, Southwest China. Elytra 25 (2): 493–580.

Watanabe Y, Xiao NN (2000) Seven new apterous *Lathrobium* (Coleoptera, Staphylinidae) from Yunnan, Southwest China. In: Aoki JI, Yin WY, Imadaté G (Eds) Taxonomical studies on the soil fauna of Yunnan Province in southwest China. Tokai University Press, Tokyo, 179–196.